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Self-employed indigenous Australians in the labour market

A.E. Daly

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- identify and analyse the factors affecting Aboriginal and Torres Strait Islander participation in the labour force; and
- assist in the development of government strategies aimed at raising the level of Aboriginal and Torres Strait Islander participation in the labour market.

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ABSTRACT

Self-employment has been regarded as an important avenue for economic advancement for some groups with limited opportunities in the mainstream labour market. It has, however, been of minor significance to indigenous Australians. In 1991, only 2.2 per cent of the indigenous working-aged population were self-employed compared with 11.1 per cent of other Australians. This paper presents a comparison of the characteristics of self-employed indigenous people with indigenous wage and salary earners and other self-employed Australians. In comparison with indigenous wage and salary earners, self-employed indigenous people were more likely to be employed as tradespersons and to work in the private sector. They had lower levels of education than other self-employed Australians and were under-represented among managers and administrators and professionals. The paper then considers some of the reasons for the low level of self-employment amongst indigenous Australians.

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This paper forms part of a larger project on the position of indigenous Australians in the labour market. I would like to thank Jon Altman for comments on an earlier draft. I would also like to thank Lui Jin who has provided cheerful assistance in the preparation of the tables and Linda Roach, Krystyna Szokalski and Hilary Bek for their help in preparing this paper for publication.

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Foreword

In April 1992, Dr Anne Daly, then Research Fellow at the Centre for Aboriginal Economic Policy Research (CAEPR), ANU took up a concurrent half-time Australian Bureau of Statistics (ABS) Research FInellowship. The ABS objectives in providing research fellowships are to allow greater use of ABS data in academic research and to encourage the development of new techniques for the analysis of data. In Dr Daly's case, a principal aim of applying for this competitive Fellowship was to allow unimpeded access to the Aboriginal population sub-file so that statistical analysis from the conceptual framework of human capital theory could be undertaken for the first time. Dr Daly's ABS Fellowship ran to 31 March 1994 and in this time she completed research for a monograph with the working title 'Aboriginal and Torres Strait Islander People in the Australian Labour Market'. The monograph is to be completed and published by ABS later this year.

CAEPR Discussion Paper No. 67 uses 1991 Census data to update an earlier discussion paper (No. 39) that examined self employment among indigenous Australians using 1986 Census data. What is of special significance about this paper is Dr Daly's ability to examine intercensal change in the extent of indigenous Australian self-employment and the characteristics of this section of the labour force compared to both other Australian self-employed and indiegnous Australian employees. This paper is of great policy topicality because census-data on self-employed indigenous Australians are a major means to assess the broad performance of indigenous enterprises and government programs to facilitate their establishment. This research should assist in the ongoing assessment of both the Aboriginal Employment Development Policy (AEDP) and the Aboriginal and Torres Strait Islander Education Policy (AEP).

Dr Daly is publishing this work-in-progress, which will form a chapter in the above-mentioned monograph, for two reasons. First, it is important that the results of her research at CAEPR and ABS are made widely available as soon as completed. Second, Dr Daly is seeking feedback that might assist her overall project. The active collaboration between CAEPR and ABS in this research project is very welcome. I would like to thank Dr Daly for her willingness to disseminate her research findings in the CAEPR Discussion Paper series prior to finalisation in recognition that her research will better inform policy formulation in a very complex area.

Jon Altman
Series Editor
July 1994

Self-employment is regarded as an important avenue for social and economic advancement for certain groups in the population. In many countries it is of particular importance for some migrant groups, but even within these groups there are sharp ethnic differences in the rate of self-employment (Rees and Shah 1986; Evans 1989; Borjas 1986; Kidd 1993). Self-employment is one means by which ethnic groups can overcome problems such as language difficulties and unrecognised qualifications. It may also be important as a way of circumventing discrimination in employment. Some Australian evidence suggests that self-employment may be particularly profitable where there are large concentrations of an ethnic group. Members have an advantage in providing goods and services to the group through their knowledge of the relevant language and culture (Evans 1989).

The purpose of this discussion paper is to describe the characteristics of self-employed indigenous Australians[1] as reported in the census, and to outline some of the major issues highlighted in the literature on indigenous entrepreneurial activity. While much has been written on the need to promote indigenous enterprises, little has been written on the self-employed as a group.

Although indigenous Australians and migrants may encounter similar labour market difficulties, such as language problems and discrimination, according to the census, self-employment is uncommon among indigenous Australians. The Miller Report (1985) commented on the low rate of self-employment among indigenous Australians as recorded in the 1971 and 1981 Censuses. In 1991, the indigenous working-age population had a self-employment rate one-fifth of the rest of the Australian population; 2.2 per cent compared with 11.1 per cent. Census figures, however, show that between 1986 and 1991, there was a greater proportional increase in self-employment among the indigenous population than among other Australians. In 1986, the proportion of the indigenous Australians of working age who were self-employed was one-eighth of that of other Australians.

Small business and self-employment are now regarded as important parts of the economy with specific government policies aimed at promoting these activities. The scope for self-employment differs between industries and occupations reflecting differences in the scale of production, the extent of public ownership and the technologies involved. Among the population in general, self-employment is important in farming activities, the professions (for example doctors, lawyers and accountants), retail trade and building and construction. The Department of Industry, Technology and Commerce (DITECH), the Department of Employment, Education and Training (DEET) and the Department of Primary Industry and Energy (DPIE) are some Commonwealth agencies running programs to promote small business. There is even a specific program, the Aboriginal Enterprise

Incentive Scheme (AEIS) run initially by DEET, with the aim of assisting unemployed indigenous Australians to establish small businesses. In 1990 the scheme had a budget of $9 million. In July 1992, responsibility for AEIS, along with the community elements of the Training for Aboriginals Program (TAP), was transferred to the Aboriginal and Torres Strait Islander Commission (ATSIC).

A range of programs have also been run by ATSIC and its predecessors which aimed to promote indigenous enterprises. These programs have met with limited success and their role under the Aboriginal Employment Development Policy (AEDP) was reduced (for some recent critical reviews of programs see Jarvie 1990 and Office of Evaluation and Audit (OEA) 1990, 1991). However, following the recommendations of the Royal Commission into Aboriginal Deaths in Custody, the Community Economic Initiatives Scheme has been established for the promotion of indigenous community enterprises. A $23 million budget will be administered by ATSIC and spent over a five-year period. In addition, ATSIC also administers the Business Funding Scheme for the establishment of commercially viable enterprises and subsidises employment in indigenous enterprises under the Enterprise Employment Assistance scheme.

The emphasis of this discussion paper will be on a description of the self-employed indigenous Australians as recorded in the 1991 Census and a comparison between this group and two others: indigenous Australians who were wage and salary earners and self-employed other Australians. Two comparison groups have been used as there are two broad questions for analysis in this paper. The first relates to the indigenous population: how do self-employed indigenous Australians compare with indigenous Australian wage and salary earners? This will suggest whether there are any particular niches within the labour market which are more appropriate for self-employed indigenous Australians.

The second question relates to how self-employed indigenous Australians compare with the self-employed in the rest of the population. Such a comparison can be used to suggest areas, occupations or industries, where self-employment of indigenous Australians could be expanded.

This paper also presents some comparisons of self-employed indigenous Australians in 1986 and 1991. The results show a relatively large increase in the number of indigenous self-employed people over this five-year period. The number of self-employed indigenous Australians grew by 100.2 per cent compared with a growth of 30.8 per cent for indigenous wage and salary earners and 15.0 per cent in the number of non-indigenous people in self-employment.[2]

Two census categories have been included in the definition of self-employed used here: those who said that in the main job held last week

they were 'conducting own business but not employing others' and those who were 'conducting own business and employing others' (question 28 of the census). Both categories have been included in the definition of self-employment used here because this paper aims to present a broad picture of the characteristics of all self-employed people. The scale of the business is not a particular focus of this analysis nor is the aim to consider a subsection of the group in greater detail as in some studies (for example, Evans 1989). Sixty-six per cent of the indigenous Australians describing themselves as self-employed in 1991 did not employ anyone in their business.

The characteristics of self-employed indigenous Australians

Table 1 presents data on the age distribution of self-employed indigenous Australians compared with the other major components of the indigenous labour force: the employed and unemployed (unpaid helpers have been omitted as they constitute a very small category); and other self-employed Australians. Indigenous wage and salary earners constituted the major part of the indigenous labour force, with the self-employed only accounting for 4 per cent of the total. This was about a quarter of the share of the self-employed among the rest of the Australian labour force.

The self-employed were more likely to be male than female but the gender gap was less pronounced for indigenous Australians than among other Australians where the self-employed accounted for 17.7 per cent of the male labour force and 11.7 per cent of the female labour force. Age also appears to be related to employment status. Self-employed indigenous Australians were, on average, older than wage and salary earners and were concentrated in the 30-44 year age group. This was also true for the non-indigenous self-employed who were mainly between the ages of 30 and 50 years. In the interests of conciseness, the tables which follow will concentrate on the self-employed as a whole and will not present age and sex breakdowns.

The picture of self-employed indigenous Australians which is presented in the census suggests that this group was, in many respects, more like the rest of the Australian population than were indigenous Australians in general. Several reported characteristics support this statement. They were more likely to live in a major urban area than were indigenous wage and salary earners (37 per cent compared with 30.8 per cent) and were more likely to be legally married (64.7 per cent compared with 41.4 per cent). However, on neither of these indicators did the percentages reach those of the non-indigenous self-employed, 53.9 per cent of whom lived in a major urban area and 79.7 per cent of whom were legally married. Self-employed indigenous Australians were reported as having a high proficiency in English; 95 per cent either spoke English as their main language or claimed to speak English 'very well' compared with 89 per cent of indigenous wage and salary earners and 94 per cent of the non-indigenous self-employed.

Table 1. The employment status of the labour force by age category and sex, 1991.

Age	Indigenous Wage and salary earners Per cent[a]	Indigenous Unemployed Per cent[a]	Indigenous Self-employed Per cent[a]	Non-indigenous Self-employed Per cent[a]
Males				
15-19	7.6	6.3	0.1	0.2
20-24	11.5	8.0	0.4	0.6
25-29	10.8	5.8	0.6	1.6
30-34	9.6	4.4	0.8	2.4
35-39	7.8	2.9	0.7	2.7
40-44	6.3	2.0	0.7	3.1
45-49	4.2	1.3	0.4	2.5
50-54	2.8	0.8	0.2	2.0
55-59	1.8	0.5	0.2	1.4
60-64	0.9	0.3	0.1	1.2
Total	63.2	32.3	4.3	17.7
Total number	31,185	15,919	2,102	794,700
Females				
15-19	8.4	7.6	0.2	0.1
20-24	13.0	7.1	0.3	0.4
25-29	11.1	4.5	0.5	1.0
30-34	10.1	3.1	0.7	1.7
35-39	9.0	2.3	0.6	1.8
40-44	7.2	1.8	0.5	1.8
45-49	4.4	1.1	0.3	2.3
50-54	2.7	0.6	0.2	1.7
55-59	1.2	0.3	0.2	1.3
60-64	0.4	0.2	0.1	0.5
Total	67.4	28.5	3.5	11.7
Total number	21,817	9,236	1,130	385,400
Persons				
15-19	7.9	6.8	0.2	0.1
20-24	12.1	7.7	0.3	0.5
25-29	10.9	5.3	0.5	1.3
30-34	9.8	3.9	0.8	2.1
35-39	8.3	2.6	0.7	2.3
40-44	6.6	1.9	0.6	2.8
45-49	4.3	1.2	0.4	2.2
50-54	2.8	0.7	0.2	1.7
55-59	1.6	0.5	0.2	1.2
60-64	0.7	0.2	0.1	0.9
Total	64.9	30.8	4.0	15.1
Total number	53,002	25,155	3,232	1,180,100

a. The percentages relate respectively to the percentage of the total labour force of each sex and for persons, of the total labour force. The category 'unpaid family helper' has been left out as this group accounted for less than 1 per cent of the labour force.

Source: 1991 Census full Aboriginal sub-file and 1 per cent Australian Bureau of Statistics (ABS) sample.

Tables 2 to 4 relate to education. Table 2 compares age on leaving school for the three groups. Based on this measure of educational attainment, self-employed indigenous Australians had, on average, left school earlier than either indigenous wage and salary earners or self-employed non-indigenous Australians. While 21 per cent of self-employed indigenous people had left school at the age of 17 years or older, 26 per cent of indigenous wage and salary earners and 36 per cent self-employed non-indigenous people were in this category. The proportion who had never attended school was similar for both indigenous groups but much higher than for the self-employed non-indigenous groups.

Table 2. Age on leaving school by employment status for indigenous and non-indigenous Australians aged 15-64 years in 1991.[a]

Age	Indigenous		Non-indigenous
	Wage and salary earners	Self-employed	Self-employed
	Per cent	Per cent	Per cent
Less than age 15 years	15.0	18.2	12.7
15	29.0	32.8	26.5
16	27.1	25.2	23.8
17	15.8	12.7	19.2
18	6.7	5.2	10.3
19+	3.2	2.9	6.7
Still at school	1.1	0.7	0.2
Never attended school	2.1	2.2	0.6
Total	100.0	100.0	100.0

a. These figures are calculated on the assumption that children begin school at the age of five. Those still attending school were omitted from the calculation.

Source: 1991 Census full Aboriginal sub-file and 1 per cent ABS sample.

Table 3 shows that self-employed indigenous Australians were substantially more likely to hold a qualification than were indigenous wage and salary earners. The 'no qualifications' category was 21 per cent higher for wage and salary earners compared with self-employed indigenous Australians. Twenty-six per cent of self-employed indigenous Australians held a certificate qualification, over twice the proportion among indigenous wage and salary earners and similar to the proportion in the non-indigenous self-employed population. In comparison with the self-employed non-indigenous population, a much smaller proportion of self-employed indigenous Australians held university degrees or diplomas: 5.1 per cent compared with 14.5 per cent. This difference is reflected in the much larger percentage of the non-indigenous self-employed in the professions reported in the occupational distribution considered below (see Table 5). Self-employed indigenous Australians were less likely to hold a qualification than were other self-employed Australians.

Table 3. Qualifications by employment status for indigenous and non-indigenous Australians aged 15-64 years in 1991.

Age	Indigenous Wage and salary earners Per cent	Indigenous Self-employed Per cent	Non-indigenous Self-employed Per cent
University degree	2.0	2.9	10.4
Diploma	2.3	2.2	4.1
Trade or other certificate[a]	12.8	26.2	29.8
No qualifications	82.8	68.6	55.7
Total	100.0	100.0	100.0

a. This category also includes qualifications which were not classified according to the level.

Source: 1991 Census full Aboriginal sub-file and 1 per cent ABS sample.

Table 4 shows the broad field in which qualifications were held. The main two fields in which self-employed indigenous Australians held qualifications were in engineering and architecture and it is the large differences here that account for most of the qualification gap between indigenous wage and salary earners and the indigenous self-employed. These two fields of qualifications were also particularly important among other self-employed Australians.

Table 4. Field of qualification by employment status for indigenous and non-indigenous Australians aged 15-64 years in 1991.

Field of qualification	Indigenous Wage and salary earners Per cent	Indigenous Self-employed Per cent	Non-indigenous Self-employed Per cent
Business and administration	3.0	3.0	6.5
Health	2.1	2.0	4.8
Education	2.2	1.7	2.2
Society and culture, Arts	2.5	3.1	4.1
Natural and physical science	0.4	0.7	1.4
Engineering	4.5	10.2	13.2
Architecture and construction	1.9	9.0	8.8
Agriculture	0.4	0.9	2.0
Miscellaneous & inadequately described	2.6	4.0	4.2
No qualifications	80.4	65.4	52.8
Total	100.0	100.0	100.0

Source: 1991 Census full Aboriginal sub-file and 1 per cent ABS sample.

Occupation and industry of employment data presented in Tables 5 and 6 reflected the educational background of workers. The large group of self-employed indigenous Australians with certificate qualifications were occupied as tradespersons, mainly in the building and vehicle industries. The other large occupational group, apart from tradespersons, was managers and administrators. It is perhaps not surprising to find that about one-quarter of self-employed indigenous Australians were classified as managers and administrators compared with only 3.7 per cent of indigenous wage and salary earners (see Table 5). This, however, was a smaller proportion than the 32.4 per cent of the non-indigenous self-employed who were classified as managers and administrators. In this group the major occupations were farmers and farm managers. A smaller proportion of the indigenous self-employed were classified as professionals compared with both indigenous wage and salary earners and the non-indigenous self-employed. Most of the indigenous wage and salary earning professionals were business professionals, school teachers and social professionals while the largest group of self-employed indigenous professionals were in the 'artists and related' category.

Table 5. Occupation by employment status for indigenous and non-indigenous Australians aged 15-64 years in 1991.

Occupation	Indigenous Wage and salary earners (1)	Indigenous Self-employed (2)	Non-indigenous Self-employed (3)
Managers and administrators	3.7	23.5	32.4
Professionals	8.0	7.5	12.0
Para-professionals	8.6	2.7	2.0
Tradespersons	13.8	22.8	20.0
Clerks	15.1	8.3	7.9
Salespersons, etc.	11.0	10.9	12.3
Plant and machinery operators and drivers	9.7	10.1	6.4
Labourers	30.0	14.1	7.0
Total	100.0	100.0	100.0
Correlation coefficient r (cols 1 and 2, cols 2 and 3)	0.01		0.86

Source: 1991 Census full Aboriginal sub-file and 1 per cent ABS sample.

The difference between self-employed indigenous and non-indigenous Australians was that non-indigenous Australians work in the more skilled occupations. This was offset at the other end of the skill spectrum: while 13.4 per cent of the non-indigenous self-employed were in the less skilled occupations of plant and machinery operators and labourers, 24.2 per cent of the indigenous self-employed were in these groups. This compared with

the 40 per cent of indigenous wage and salary earners who were in these groups. The major occupations in these categories for the self-employed were 'road/rail transport drivers', 'miscellaneous labourers' and 'cleaners'. Further information would be necessary to establish what work self-employed 'miscellaneous labourers' were actually engaged in.

The distribution of self-employed indigenous Australians across the twelve major industry groups differed markedly from the distribution of wage and salary earners reflecting differences between industries in the technologies employed, the scale of production and the extent of public ownership (see Table 6). Over half of self-employed indigenous Australians were working in agriculture, construction and the wholesale and retail trades. However, these three industries only accounted for 20.1 per cent of wage and salary employment. Community services, which was the major employer of indigenous wage and salary earners (37 per cent of total employment) accounted for only 7.8 per cent of employment amongst self-employed indigenous Australians.

Table 6. Industry by employment status for indigenous and non-indigenous Australians, 1991.

Industry	Indigenous Wage and salary earners (1)	Indigenous Self-employed (2)	Non-indigenous Self-employed (3)
Agriculture	4.8	13.9	14.7
Mining	1.8	0.9	0.4
Manufacturing	8.5	7.3	8.7
Electricity, gas, water	1.2	0.0	0.2
Construction	4.7	18.9	15.3
Wholesale, retail trade	10.6	22.7	25.6
Transport, storage	4.2	7.7	5.5
Communications	1.5	0.4	0.1
Finance, property etc.	4.0	8.7	14.0
Public administration	15.0	1.7	0.3
Community services	37.0	7.8	5.7
Recreation, personal services	6.2	9.2	9.5
Total	100.0	100.0	100.0
Correlation coefficient r (cols 1 and 2, cols 2 and 3)	0.10		0.95

Source: 1991 Census full Aboriginal sub-file and 1 per cent ABS sample.

The industry distribution of employment of self-employed indigenous Australians was much closer to the distribution of other self-employed Australians (the correlation coefficient r = 0.95). Wholesale and retail trade, construction and agriculture were the main industries of employment

for both self-employed groups. One notable difference, however, was the smaller proportion of self-employed indigenous Australians in the finance and property industry.

When occupation of employment within an industry was also considered, there were some significant differences between self-employed indigenous Australians and others. The largest differences in occupational status within industries were in the service industries (particularly finance and community services) and in agriculture. In agriculture, 69 per cent of self-employed indigenous Australians were managers and administrators compared with 88 per cent of other self-employed Australians in this industry. This difference was offset by higher proportions of the indigenous self-employed in the tradesmen and labourers categories. In finance and community services the proportion of the non-indigenous self-employed who were classified as professionals was roughly double that of indigenous Australians. These differences were offset by a larger share of para-professionals, labourers and sales workers among the indigenous self-employed in these industries. In summary, while indigenous self-employed people were employed in similar proportions across the major industry groups to their counterparts in the rest of the Australian community, they tended to be employed in the less skilled occupations in these industries.

Table 7 presents further detail on the industry of employment for self-employed indigenous Australians according to location of residence in an urban or rural area. In common with the total Australian population, the non-indigenous self-employed were highly concentrated (53.9 per cent) in the major urban centres. The indigenous self-employed were much more evenly spread across settlement categories with 37 per cent living in major urban centres. This, however, exceeded the proportion of indigenous wage and salary earners living there. This latter group were more concentrated in the other urban and rural categories than were indigenous self-employed.

There were some interesting differences between the employment patterns of indigenous wage and salary earners and the self-employed across the section-of-State categories. As already shown in Table 6, the community service industry was a larger employer of indigenous wage and salary earners than the self-employed, but this was particularly pronounced in the rural areas. However, agriculture was the major industry of employment for self-employed indigenous Australians in rural areas. In urban areas, wholesale and retail trades and construction were the major employers of self-employed indigenous Australians.

In comparing the indigenous and non-indigenous self-employed, indigenous Australians were relatively under-represented in wholesale and retail trades and in the finance industry in the major urban centres. A larger proportion of the indigenous self-employed were in wholesale and retail trade and construction in other urban centres.

Table 7. Industry by employment status and section-of-State for indigenous and non-indigenous Australians, 1991.

Industry	Indigenous Wage and salary earners	Indigenous Self-employed	Non-indigenous Self-employed
Major urban			
Agriculture	0.2	0.5	0.6
Mining	0.1	0.1	0.1
Manufacturing	3.9	3.3	5.6
Electricity, gas, water	0.4	0.0	0.1
Construction	1.7	8.4	9.0
Wholesale, retail trade	4.6	8.5	14.9
Transport, storage	1.6	3.2	3.3
Communications	0.9	0.1	0.1
Finance, property etc.	2.1	4.9	10.1
Public administration	4.5	0.3	0.2
Community services	7.9	3.2	3.8
Recreation, personal services	2.6	4.0	5.7
Major urban total	30.8	37.0	53.9
Other urban			
Agriculture	1.3	2.0	1.1
Mining	1.2	0.3	0.2
Manufacturing	3.4	1.9	1.4
Electricity, gas, water	0.5	0.0	0.1
Construction	1.9	6.3	3.4
Wholesale, retail trade	3.9	9.1	6.5
Transport, storage	1.7	2.7	1.2
Communications	0.5	0.1	0.1
Finance, property etc.	1.4	2.3	2.3
Public administration	5.6	0.4	0.1
Community services	10.7	2.0	1.1
Recreation, personal services	2.5	3.2	2.2
Other urban total	34.9	30.7	19.7
Rural			
Agriculture	3.4	11.4	13.0
Mining	0.5	0.5	0.1
Manufacturing	1.2	2.1	1.7
Electricity, gas, water	0.2	0.0	0.0
Construction	1.0	4.3	2.8
Wholesale, retail trade	2.0	5.1	3.9
Transport, storage	0.8	1.8	1.0
Communications	0.1	0.1	0.0
Finance, property etc.	0.5	1.4	1.5
Public administration	4.9	0.8	0.0
Community services	18.4	2.7	0.8
Recreation, personal services	1.1	2.0	1.5
Rural total	34.4	32.4	26.5
Total	100.0	100.0	100.0

Source: 1991 Census full Aboriginal subfile and 1 per cent ABS sample.

In the interest of completeness, Table 8 presents the sector of employment for the indigenous self-employed and the two comparison groups. It is not surprising to see that self-employment was very much concentrated in the private sector with only 2.6 per cent of self-employed indigenous Australians in the government sector. This compared with the 40.8 per cent of indigenous wage and salary earners who worked there. Government employment provided an even smaller share, less than 1 per cent, of employment for other self-employed Australians.

Table 8. Government and private sector employment by employment status for indigenous and non-indigenous Australians, 1991.

Industry	Indigenous Wage and salary earners	Indigenous Self-employed	Non-indigenous Self-employed
Government			
Australian	9.7	0.6	0.1
State	19.8	1.4	0.2
Local	11.3	0.6	0.0
Private	59.2	97.4	99.6
Total	100.0	100.0	100.0

Source: 1991 Census full Aboriginal sub-file and 1 per cent ABS sample.

These differences between indigenous wage and salary earners and the self-employed might be expected to be reflected in income differences. Measurement of incomes of self-employed people, however, is particularly difficult because the separation of expenditure and income into current and investment components is complex. For example, a farmer may have a low annual disposable income because he has invested in farm improvements which will yield a capital gain on the sale of the farm at some point in the future. His current income therefore does not fully reflect his command over goods and services. Complications such as this make a comparison of income between wage and salary earners and the self-employed difficult.[3]

The figures presented in Table 9 show that median annual income was almost identical for the two groups of indigenous Australians. Given the presumption that the income of self-employed indigenous Australians may be understated, these results show that this group is not worse off in terms of money income than other indigenous Australians.

A comparison between the indigenous and non-indigenous self-employed is perhaps less problematic as the difficulty of distinguishing individual income from that of the business is present for both. The median income of

self-employed indigenous Australians was 82 per cent of that for self-employed non-indigenous Australians. This is a higher ratio than for employed indigenous Australians compared with other employed Australians in general.

Table 9. Income distribution by employment status for indigenous and non-indigenous Australians, 1991.

Industry	Indigenous Wage and salary earners ($)	Indigenous Self-employed ($)	Non-indigenous Self-employed ($)
Q1[a]	9,628	8,819	11,843
Median[b]	16,711	16,338	19,954
Q3[c]	23,217	20,295	31,144

a. Q1, the first quartile, shows the income level which divides the income distribution so that 25 per cent of individuals had incomes below this level and 75 per cent above this level.
b. The median divides the income distribution in half.
c. Q3, the third quartile, divides the income distribution so that 75 per cent of individuals had an income below this level and 25 per cent above.

Source: 1991 Census full Aboriginal sub-file and 1 per cent ABS sample.

The changing nature of self-employment of indigenous Australians, 1986-91

Although remaining a small group within the indigenous population, there have been significant increases in the number of indigenous Australians recorded as self-employed in the census. In this section some of the changes which have taken place between 1986 and 1991 will be documented. Data from the 1986 Census which are used as a base for these comparisons, are reported more fully in Daly (1993).

Table 10 presents the growth in the numbers of self-employed indigenous Australians and the two comparison groups by age category. Columns 1, 3 and 5 show the percentage growth in the number in each age category and columns 2, 4 and 6, the share of the total growth accounted for by the relevant age category.

A comparison of total growth reported in columns 1, 3, and 5 shows that the fastest growing group was the indigenous self-employed although it is important to remember the small base against which this change has been measured. The number of indigenous Australians reporting themselves as self-employed doubled between 1986 and 1991 compared with a 15 per cent increase for the non-indigenous self-employed and a 30.8 per cent increase in the number of indigenous wage and salary earners.

Table 10. The growth in employment by employment status by age category, 1986-91.

Age	Indigenous Wage and salary earners		Indigenous Self-employed		Non-indigenous Self-employed	
	Per cent growth	Per cent of total growth	Per cent growth	Per cent of total growth	Per cent growth	Per cent of total growth
15-19	6.3	3.1	244.0	5.4	31.8	1.7
20-24	19.2	13.1	48.3	5.2	-5.1	-1.3
25-29	26.3	15.2	84.6	12.6	5.6	3.5
30-34	39.8	18.7	126.9	22.2	18.4	16.3
35-39	43.1	16.8	80.0	15.1	-4.0	-4.7
40-44	56.4	16.1	121.4	17.2	32.5	33.2
45-49	39.7	8.2	115.4	10.6	25.9	22.2
50-54	41.3	5.4	74.5	4.9	27.2	17.9
55-59	25.0	2.1	74.7	3.5	1.0	0.6
60-64	40.3	1.3	300.0	3.3	32.2	10.6
Total	30.8	100.0	100.2	100.0		100.0
Total number		12,164		1,617		158,000

Source: 1986 and 1991 Censuses, full Aboriginal sub-files; the 1 per cent section-of-State public use sample, 1986; the 1 per cent ABS sample, 1991.

Table 11. Age on leaving school by employment status for indigenous and non-indigenous Australians aged 15-64 years in 1991.

Age	Indigenous Wage and salary earners		Indigenous Self-employed		Non-indigenous Self-employed	
	Per cent growth	Per cent of total growth	Per cent growth	Per cent of total growth	Per cent growth	Per cent of total growth
Less than age 15 years	6.3	3.8	42.1	11.0	-24.2	-31.6
15	18.7	19.6	86.9	31.0	6.4	12.5
16	29.9	26.8	114.6	27.3	19.4	30.3
17	66.3	27.0	155.6	15.7	35.3	39.1
18	72.8	12.2	140.9	6.2	32.8	19.9
19+	176.3	8.7	252.0	4.2	108.4	27.4
Still at school	142.0	2.8	n.a.	1.4	100.0	0.8
Never attended school	-9.1	-0.9	252.6	3.2	54.5	1.6
Total	30.4	100.0	97.1	100.0	14.7	100.0
Total number		11,521		1,497		146,100

n.a. There were no self-employed people recorded as still in school in 1986 so the presentation of a growth rate seems inappropriate.

Source: 1986 and 1991 Censuses, full Aboriginal sub-files; the 1 per cent section-of-State public use sample, 1986; the 1 per cent ABS sample, 1991.

The growth in the number of indigenous self-employed was spread across all age groups. In common with indigenous wage and salary earners, about half of the increase was in the 30-44 years age group. This growth concentration was at a slightly younger age than among the non-indigenous self-employed. Half of the growth of this group was in the 40-49 year old category.

Table 11 presents data on the changing educational status of self-employed indigenous Australians as measured by the age on leaving school.[4] The growth in self-employment for indigenous Australians covered all schooling levels but 58.3 per cent of the total growth occurred among those who had left school aged 15-16 years. This concentration at relatively low school leaving ages was greater than among either of the comparison groups. For these two groups more than half of the growth came from people who had left school aged 16-17 years. Among the non-indigenous self-employed, there was a sharp decline in the number who left school before the age of 15 years, but this group continued to grow among the self-employed indigenous Australians.

Tables 12 and 13 describe the occupational and industry changes for self-employed indigenous Australians. Once again, there was growth in all categories for self-employed indigenous Australians and for indigenous wage and salary earners (see Table 12). While the largest increases among self-employed indigenous Australians were for managers and administrators, and tradespersons, the major growth occupations among wage and salary earners were professionals and salespersons.

The source of employment growth differed for the non-indigenous self-employed. There was actually a decline in the number reported as managers and administrators and over half of the increase was among professionals and salespersons. These two occupations only accounted for 23.8 per cent of the growth in self-employment of indigenous Australians.

There are also some interesting differences in the growth patterns reported in Table 13 relating to industry. There was some growth in self-employment for indigenous Australians in all industries except electricity, gas and water which has a very high concentration of public ownership. While over half of the growth in employment for indigenous wage and salary earners was in community services, growth was spread more evenly over all industries for the self-employed. The three industries of construction, wholesale and retail trade, and community services accounted for 54.8 per cent of the growth in employment for self-employed indigenous Australians.

Table 12. Growth in occupational employment by employment status for indigenous and non-indigenous Australians aged 15-64 years, 1986-91.

Occupation	Indigenous Wage and salary earners		Indigenous Self-employed		Non-indigenous Self-employed	
	Per cent growth	Per cent of total growth	Per cent growth	Per cent of total growth	Per cent growth	Per cent of total growth
Managers and administrators	70.1	8.7	70.5	22.7	-1.5	-4.9
Professionals	84.1	20.7	153.8	10.6	35.3	31.3
Para-professionals	60.7	18.5	184.6	4.1	32.5	4.9
Tradespersons	17.6	11.7	60.8	20.1	9.1	16.7
Clerks	8.3	6.6	139.4	11.3	24.0	15.4
Salespersons, etc.	57.1	22.7	105.6	13.2	25.9	25.3
Plant and machinery operators and drivers	8.6	4.4	36.0	6.2	2.8	1.7
Labourers	4.2	6.8	55.5	11.8	15.8	9.6
Total	21.5	100.0	74.9	100.0	11.1	100.0
Total number[a]		8,240		1,157		110,600

a. The numbers reported here are smaller than those reported in Table 10 because they exclude those who did not state their occupation.

Source: 1986 and 1991 Censuses, full Aboriginal sub-files; the 1 per cent section-of-State public use sample, 1986; the 1 per cent ABS sample, 1991.

Table 13. Growth in industry employment by employment status for indigenous and non-indigenous Australians, 1986-91.

Industry	Indigenous Wage and salary earners		Indigenous Self-employed		Non-indigenous Self-employed	
	Per cent growth	Per cent of total growth	Per cent growth	Per cent of total growth	Per cent growth	Per cent of total growth
Agriculture	-13.6	-3.8	34.1	8.3	23.5	-48.0
Mining	8.5	0.7	91.7	1.0	73.9	1.7
Manufacturing	11.0	4.3	64.7	6.7	27.1	19.6
Electricity, gas, water	-19.9	-1.4	0	0	na	1.7
Construction	0.7	0.2	56.2	15.9	5.3	8.2
Wholesale, retail trade	36.4	14.3	75.8	22.8	13.2	31.4
Transport, storage	-20.1	-5.3	38.9	5.0	3.9	2.1
Communications	0.6	0.5	n.a.	0.9	n.a.	0.9
Finance, property etc.	24.0	3.9	132.0	11.5	38.5	40.9
Public administration	37.6	20.6	n.a.	3.9	n.a.	3.0
Community services	45.1	57.7	750	16.1	45.7	18.7
Recreation, personal services	36.7	8.4	59.7	8.0	24.8	19.8
Total	25.0	100.0	76.3	100.0	11.3	100.0
Total number[a]		9,446		1,115		102,500

n.a. There were no self-employed people recorded in these industries in 1986 so the presentation of a growth rate seems inappropriate.

a. The numbers reported here are smaller than those reported in Table 10 because they exclude those who did not state their industry of employment.

Source: 1986 and 1991 Censuses, full Aboriginal sub-files; the 1 per cent section-of-State public use sample, 1986; the 1 per cent ABS sample, 1991.

The wholesale and retail trade was also a major contributor to the growth in self-employment among other Australians. However, the industry which had contributed most to the growth in non-indigenous self-employment, finance, was of lesser significance to indigenous self-employment. Employment growth in recreation and personal services also contributed less to the total growth in self-employment among indigenous Australians compared with other Australians. In contrast to the dramatic decline in self-employment in agriculture among non-indigenous Australians, there was some increase in self-employment of indigenous Australians in this industry.

Finally, a comparison of the median incomes in 1986 and 1991 shows that the ratio of the incomes of indigenous self-employed and wage and salary earners has changed little in the five-year period. There is some evidence of a declining ratio of median indigenous self-employed income to that of other self-employed Australians: from 92 per cent in 1986 to 82 per cent in 1991. This perhaps reflects the more rapid growth of professional employment among other self-employed Australians than among indigenous Australians.

Some possible explanations of the low level of self-employment among indigenous Australians

The census data reported here show that for indigenous Australians, self-employment is a minor but growing activity. Most indigenous Australians in employment were wage and salary earners. There are, however, a number of reasons why these census statistics under-represent the extent of self-employment and entrepreneurial activity among indigenous Australians.

Firstly, there is the problem that indigenous artists and hunter-gatherers may not classify themselves or be recognised as self-employed under existing definitions. The Aboriginal Arts and Crafts Review (Altman 1989) estimated that there were 4,838 indigenous artists in Australia in 1987-88, but the 1986 Census showed only 59 indigenous Australians engaged in visual arts and crafts occupations. In 1991, 82 indigenous Australians were recorded as self-employed 'artists and related professionals' and a further 345 as wage and salary earners. These figures remain well below the estimated number of indigenous artists.

Similarly, hunter-gatherers are unlikely to be included among the self-employed as they could not be described as 'conducting their own business' even though they are working to produce non-monetary income for themselves. Altman and Taylor (1989) estimated that about 10 per cent of the indigenous population lived at outstations where some hunting and gathering activities were undertaken.[5] The inclusion of these groups would

increase the importance of self-employment among indigenous Australians. However, in order to compare this figure with that of the total Australian population, it would be necessary to make a similar adjustment for other Australians who earned income from similar sources.[6] It seems likely that the proportion of indigenous Australians in a more broadly defined category of self-employment would remain below that of other Australians.[7]

It is questionable, however, whether it is appropriate to think of these artists and hunter-gatherers as self-employed in the sense of being self-supporting and independent of government transfers. The majority of the artists surveyed for the Arts and Crafts Review earned less than $1,000 a year from these activities; this income was usually a supplement to income derived from other sources. Similarly, hunting and gathering activities produced only part of the income of people living at outstations (Altman 1987b; Altman and Taylor 1989; Fisk 1985) as many adults received income transfers from government. The use of a broader definition of self-employment to include these groups would conceal important characteristics of the individuals concerned. For example, the income generated by most indigenous artists was not sufficient to make them economically independent; to describe them as self-employed would suggest otherwise. The need for income support from sources other than arts and crafts production and hunting and gathering would remain if incomes of indigenous Australians were not to fall even further behind those of other Australians.

One of the reasons for low levels of self-employment among indigenous Australians may be the government agencies' preference for funding of community enterprises rather than individual ones. Arthur (1992) and Young (1988) show that in Aboriginal and Torres Strait Islander policy there has been considerable emphasis placed on the community in the establishment of enterprises. This emphasis may in part explain or contribute to the low rate of self-employment among indigenous Australians.

Other factors may also be important in explaining differential rates of self-employment and the low rate of success of indigenous community enterprises (see Altman 1987a, 1988; Office of Evaluation and Audit 1991; Jarvie 1990; Arthur 1992; Young 1987, 1988 for fuller discussions of these issues). An obvious limiting factor is the lower level of education, labour market experience and management skills among indigenous Australians compared with the rest of the Australian population. For example, Young (1987) noted that indigenous enterprises such as the community store, were often run by European managers because there was no indigenous member of the community with the necessary commercial experience. Altman (1987a, 1988) also emphasised the lack of managerial skills as an inhibiting factor in the development of indigenous tourist enterprises.

A further argument attributes these differences, in part, to an absence of a 'culture of entrepreneurship' among indigenous Australians (Altman 1988; Young 1987, 1988). Young emphasises the importance of kinship ties and authority structures based on age and traditional knowledge as barriers to profit maximising behaviour in the management of commercial enterprises. Furthermore, in remote Australia, traditional owners of land may have particular rights of control over all enterprises conducted on this land regardless of their ability or experience in running enterprises (Ellana et al. 1988).

Access to the necessary capital to establish an enterprise is another factor limiting the ability of poor indigenous Australians to establish their own businesses. Altman (1988) noted that even where there were significant amounts of capital available from royalty payments, there was a tension between spending the money now on needy members of the community or investing it for the future.

A final explanation of the lack of entrepreneurial success among indigenous Australians is the relatively large proportion living in remote areas where transport costs and a low level of local demand inhibit the growth of small business. Although location of residence may reduce the scope for the establishment of a wide range of small businesses, it also creates opportunities based on these locations. Altman (1989) estimated that half of the indigenous artists in Australia lived in the Northern Territory, where their location offers them opportunities for sale of their work to tourists.

The relative importance of all of these factors in explaining the low levels of self-employment among indigenous Australians remains unquantified and census data are not conducive to a further investigation of these issues.

Conclusion

The role of self-employment and small business in providing opportunities for disadvantaged groups to develop a niche in the labour market has been emphasised in a number of studies of the economic status of migrants in various countries. Many of the problems faced by migrants such as language difficulties and discrimination, may also exist for indigenous Australians entering the labour market, yet self-employment remains a minor activity for indigenous Australians. According to 1991 Census figures, the indigenous working-age population had a self-employment rate which was one-fifth of that of the rest of the Australian population; 2.2 per cent compared with 11.1 per cent. There appear to be a number of possible explanations of this result.

A first possibility is that there are a large number of indigenous Australians working as artists and hunter-gatherers who either do not classify

themselves, or are not recognised, as self-employed. These people generate income from these activities and as such make an important contribution to their own wellbeing. It is, however, important to recognise that the majority of this group remain dependent on income transfers from government for most of their income. While it would be misleading to describe this group as economically inactive or totally welfare dependent, it seems inappropriate to classify them as self-employed in the sense that they are economically independent of government income support.

The emphasis of government funding on community enterprises may be another factor contributing to the lower rate of self-employment among indigenous Australians, especially in urban settings where there are no communities. Among the other reasons which have been put forward to explain the lack of entrepreneurial success among indigenous Australians is a lack of education and training in the organisation of viable commercial enterprises. Shortages of capital and the limited opportunities related to remote locations of residence may also contribute to low levels of self-employment. The role of traditional value systems which do not fit well with the efficient organisation of a viable commercial enterprise has also been emphasised. Some of these factors may have positive as well as negative aspects. Indigenous Australians living traditional lifestyles in remote locations may be considered to have unique opportunities for the development of small business.

Two comparison groups have been used in this paper to present a picture of self-employed indigenous Australians. The first was a comparison with indigenous wage and salary earners. The major differences between these two groups of employed indigenous Australians were in the occupation and industry of employment. Self-employed indigenous Australians were more likely to be employed as tradespersons and to work in the private sector (agriculture, construction and wholesale and retail trade) than were indigenous wage and salary earners. They may therefore offer important opportunities for the expansion of employment of indigenous Australians in these industries and for a reduction of indigenous dependence on public sector employment and welfare.

In comparison with other self-employed Australians, self-employed indigenous Australians had spent less time at school and were less likely to have a formal qualification. They were mainly employed in trade occupations and in the lower-skilled occupations of plant and machinery operators and labourers. Self-employed indigenous Australians were under-represented among managers and administrators and professionals compared with other self-employed Australians. Raising educational attainment is likely to increase the number of indigenous Australians in these groups, although this is a long term process requiring not only human capital but physical capital inputs.

Between 1986 and 1991, the number of indigenous Australians who were self-employed doubled and the growth was apparent across all age categories. The growth in self-employment was more concentrated among indigenous Australians who had left school relatively early, in contrast to the larger share of employment growth for indigenous wage and salary earners and the non-indigenous self-employed coming from people who had spent more time at school. Employment growth for the indigenous self-employed was particularly strong among managers and administrators and tradespersons and was not as strong among the professions and salespersons as for indigenous wage and salary earners and the non-indigenous self-employed. The growth in self-employment of indigenous Australians by industry was more evenly spread across industries than employment growth for indigenous wage and salary earners which was heavily concentrated in community services. The three industries of construction, wholesale and retail trade, and community services accounted for over half of the growth in indigenous self-employment.

Self-employment has been recognised as a means by which disadvantaged groups can raise their economic status. However, there are other ways of achieving this end. In the case of indigenous Australians, community enterprises may offer access to employment and income for this disadvantaged group in the way that self-employment has for some migrant groups. If this is so, the low levels of self-employment among indigenous Australians may not be a particular problem but rather reflect features of indigenous culture. An important difference between privately owned small business and indigenous community enterprises arises when community enterprises remain dependent on public money and political support for viability. The success of indigenous commercial enterprises, whether run by individuals or communities, will depend amongst other things, on the development of the appropriate management skills and rewards for those working in enterprises.

Notes

1. The terms 'Aboriginal' and 'indigenous Australians' will be used throughout this paper to describe both the Aboriginal and Torres Strait Islander populations of Australia.

2. This differs somewhat from Taylor's (1993) estimated growth rate because of slight differences in the definitions used and the use here of sample data rather than the full census count.

3. Chiswick (1983) presents a methodology based on a human capital earnings function, for the decomposition of income for the self-employed into its labour and non-labour components.

4. Tables comparing the changes in educational qualifications and field of study have not been presented because of the changes in the educational classification code between 1986 and 1991.

5. See Altman and Allen (1992a) for a recent survey of studies of the contribution of subsistence activities to the income of indigenous Australians living in remote Australia.

6. See Altman and Allen (1992b) for a discussion of the issues relating to the inclusion of the informal sector in official statistics.

7. It has been suggested by a referee that unemployed indigenous Australians in some communities may identify themselves as self-employed. If this is the case, indigenous self-employment may be overstated by the census data. Further research is required to quantify the importance of this factor.

References

Altman, J.C. 1987a. 'The economic impact of tourism on the Warmun (Turkey Creek) community East Kimberley', *East Kimberley Working Paper No. 19*, Centre for Resource and Environmental Studies, Australian National University, Canberra.

Altman, J.C. 1987b. *Hunter-Gatherers Today: An Aboriginal Economy in North Australia,* Australian Institute of Aboriginal Studies, Canberra.

Altman, J.C. 1988. *Aborigines, Tourism, and Development: The Northern Territory Experience*, North Australia Research Unit, Darwin.

Altman, J.C. (Chair) 1989. *The Aboriginal Arts and Crafts Industry*, Report of the Review Committee to the Minister of Aboriginal Affairs, Australian Government Publishing Service, Canberra.

Altman, J.C. and Allen, L.M. 1992a. 'Living off the land in national parks: issues for Aboriginal Australians', in J. Birckhead, T. De Lacey and L. Smith (eds) *Aboriginal Involvement in Parks and Protected Areas*, Aboriginal Studies Press, Canberra.

Altman, J.C. and Allen, L.M. 1992b. 'Indigenous participation in the informal economy: statistical and policy implications', in J.C. Altman (ed.) *A National Survey of Indigenous Australians,* Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.

Altman, J.C. and Taylor, L. 1989. *The Economic Viability of Aboriginal Outstations and Homelands*, Australian Government Publishing Service, Canberra.

Arthur, W.S. 1992. 'The Aboriginal community and community enterprise', in P. Saunders and D. Encel (eds) *Social Policy in Australia: Options for the 1990s*, Social Policy Research Centre, University of New South Wales, Kensington.

Borjas, G. 1986. 'The self-employment experience of immigrants', *Journal of Human Resources*, 21 (4): 485-506.

Chiswick, C. 1983. 'Analysis of earnings from household enterprises: methodology and application to Thailand', *Review of Economics and Statistics*, 65 (4): 658-62.

Commonwealth of Australia 1991. *Royal Commission into Aboriginal Deaths in Custody, National Report* (Commissioner E. Johnston), Australian Government Publishing Service, Canberra.

Daly, A.E. 1993. 'Self-employment amongst Aboriginal people', *CAEPR Discussion Paper No. 39*, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.

Ellana, E., Loveday, P., Stanley, O. and Young, E. 1988. *Economic Enterprises in Aboriginal Communities in the Northern Territory*, North Australia Research Unit, Darwin.

Evans, M.D.R. 1989. 'Immigrant entrepreneurship: effects of ethnic market size and isolated labour pool', *American Sociological Review*, 54: 950-62.

Fisk, E.K. 1985. *The Aboriginal Economy in Town and Country*, George Allen and Unwin, Sydney.

Jarvie, W. 1990. Review of the Economic Independence Program of the Aboriginal Development Commission, unpublished report, Department of Finance, Canberra.

Kidd, M. 1993. 'Immigrant wage differentials and the role of self-employment in Australia', *Australian Economic Papers*, 32 (60): 92-116.

Miller, M. (Chair) 1985. *Report of the Committee of Review of Aboriginal Employment and Training Programs*, Australian Government Publishing Service, Canberra.

Office of Evaluation and Audit (OEA) 1990. *Aboriginal and Torres Strait Islander Enterprise Funding*, OEA, Canberra.

Office of Evaluation and Audit (OEA) 1991. *Evaluation of Enterprise Program*, OEA, Canberra.

Rees, H. and Shah, A. 1986. 'An empirical analysis of self-employment in the UK', *Journal of Applied Econometrics*, 1: 95-108.

Taylor, J. 1992. 'Aboriginal migration and labour market programs', *Journal of the Australian Population Association,* 9 (1): 53-71.

Taylor, J. 1993. *The Relative Economic Status of Indigenous Australians, 1986-91*, CAEPR Monograph No. 5, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.

Young, E. 1987. 'Commerce in the bush: Aboriginal and Inuit experiences in the commercial world', *Australian Aboriginal Studies*, 1987/2: 46-53.

Young, E. 1988. 'Aboriginal economic enterprises: problems and prospects', in D. Wade-Marshall and P. Loveday (eds) *North Australia: Progress and Prospects, Vol. 1, Contemporary Issues in Development*, North Australia Research Unit, Darwin.

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